

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A non-contact type tonometer including:

fluid blowing means which blows fluid against a cornea of an eye of an examinee;

intraocular pressure measurement means which detects a deformed state of the cornea caused by the blown fluid and determines intraocular pressure of the examinee's eye based on a result of detection of the deformed state;

pulsation detection means which detects pulsation of the examinee;

measurement timing determination means which ~~can determine~~ determines a measurement timing based on the detected pulsation ~~to obtain a predetermined number of results of measurement on the intraocular pressure in synchronization with different phase points in the pulsation;~~

command signal input means which inputs a command signal for execution of ~~the intraocular pressure measurement; and~~

control means which outputs a control signal for controlling driving of the fluid blowing means based on the determined measurement timing and the input command ~~signal; and~~

mode selection means which selects one of a first mode for obtaining a measurement value of the intraocular pressure at a measurement timing corresponding to at least one of a peak point in a phase of pulsation, a bottom point in the phase of pulsation and an arbitrary point in the phase of pulsation and a second mode for obtaining a measurement value of the intraocular pressure at a first measurement timing corresponding to the peak

point and a measurement value of the intraocular pressure at a second measurement timing corresponding to the bottom point,

wherein when the second mode is selected, the measurement timing determination means determines the first measurement timing based on the peak point in the phase of the detected pulsation and the second measurement timing based on the bottom point in the phase of the detected pulsation.

2. (Currently Amended) The non-contact type tonometer according to claim 1, wherein ~~the measurement timing determination means determines the measurement timing based on at least a peak point and a bottom point in the pulsation phase, and~~
the intraocular pressure measurement means calculates an average value of a the measurement value in a at the first measurement timing corresponding to the peak point and a the measurement value in a at the second measurement timing corresponding to the bottom point.

3. (Currently Amended) The non-contact type tonometer according to claim 2 further including output means which outputs the measurement value obtained ~~in at~~ at the first measurement timing, the measurement value obtained ~~in at~~ at the second measurement timing, and the average value of those measurement values so that those values are distinguishable.

4. (Canceled)

5. (Currently Amended) A non-contact type tonometer including:
fluid blowing means which blows fluid against a cornea of an eye of an examinee;

intraocular pressure measurement means which detects a deformed state of the cornea caused by the blown fluid and determines intraocular pressure of the examinee's eye based on a result of detection of the deformed state;

pulsation detection means which detects pulsation before measurement start of the examinee;

measurement timing determination means which, when plural stable waveforms of the pulsation before the measurement start are detected, determines a measurement timing ~~to obtain a predetermined number of results of measurement on the intraocular pressure in synchronization with an intended phase point in the pulsation, the determination means determining a measurement timing based on a pulsation previously detected and sampled~~ corresponding to an arbitrary point in a phase of pulsation at the measurement start based on a period of the detected pulsation waveforms;

command signal input means which inputs a command signal for execution of ~~the intraocular pressure measurement~~; and

control means which outputs a control signal for controlling driving of the fluid blowing means based on the determined measurement timing and the input command signal.

6. (Canceled)

7. (Currently Amended) The non-contact type tonometer according to ~~claim 6~~, claim 5, wherein the intraocular pressure measurement means obtains plural measurement values of the intraocular pressure, the pulsation detection means successively detects and samples the pulsation ~~even after the first detection time~~ measurement start, and

when another plural stable waveforms of the pulsation is after the measurement start are newly detected ~~and sampled within a second predetermined detection time after the first detection time~~, the measurement timing determination means determines the measurement timing corresponding to ~~the pulsation occurring after the first detection time~~ the arbitrary point in a phase of the pulsation after the measurement start based on a period of the newly sampled detected pulsation waveforms.

8. (Original) The non-contact type tonometer according to claim 5 further including prediction means which predicts a deformation detection time required from output of the control signal until a predetermined corneal deformed state is detected,

wherein the measurement timing determination means determines the measurement timing based on the predicted deformation detection time.

9-10. (Canceled)

11. (Currently Amended) A non-contact type tonometer including:
fluid blowing means which blows fluid against a cornea of an eye of an examinee;

intraocular pressure measurement means which detects a deformed state of the cornea caused by the blown fluid and determines intraocular pressure of the examinee's eye based on a result of detection of the deformed state;

first pulsation detection means which detects pulsation in a first position near an eyeball of the examinee;

second pulsation detection means which detects pulsation in a second position different from the first position;

pulsation phase shift detection means which obtains a phase shift between the pulsations detected by the first and second pulsation detection means respectively;

measurement timing determination means which determines a measurement timing based on the obtained pulsation phase shift and a detection result by the second pulsation detection means;

command signal input means which inputs a command signal for execution of intraocular pressure measurement; and

control means which outputs a control signal for controlling driving of the fluid blowing means based on the determined measurement timing and the input command signal.

12. (Currently Amended) The non-contact type tonometer according to claim 11 further including correction means which corrects, when the pulsation detected by the second pulsation detection means has changed, the determined measurement timing based on a ~~period of~~ the changed pulsation.

13. (Original) The non-contact type tonometer according to claim 11, wherein the measurement timing determination means determines the measurement timing based on the previously detected pulsation by the first pulsation detection means so that intraocular pressure measurement is executed in synchronization with an intended phase point in the previously detected pulsation.

14. (Original) The non-contact type tonometer according to claim 11, wherein the measurement timing determination means determines the measurement timing based on the sequentially detected pulsation by the second pulsation detection means.

15. (Currently Amended) A non-contact type tonometer including:
fluid blowing means which blows fluid against a cornea of an eye of an examinee;
intraocular pressure measurement means which detects a deformed state of the cornea caused by the blown fluid and determines intraocular pressure of the examinee's eye based on a result of detection of the deformed state;
first pulsation detection means which detects pulsation in a first position near an eyeball of the examinee;
second pulsation detection means which detects pulsation in a second position different from the first position;

measurement timing determination means which determines a measurement timing based on the previously detected pulsation by the first pulsation detection means so that ~~the~~ intraocular pressure measurement is executed in synchronization with an intended phase point in the previously detected pulsation, and

information means which informs that a period of the pulsation detected by the second pulsation detection means has changed after determination of the measurement timing has changed.